THE PROGRESSIVE FARMER

THE INDUSTRIAL AND EDUCATIONAL INTERESTS OF OUR PEOPLE PARAMOUNT TO ALL OTHER CONSIDERATIONS OF STATE POLICY.

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Agriculture.

GROWING THE COW PEA.

Cor. of The Progressive Farmer.

Al over the country where the cow pea can be grown, farmers are waking up on the subject, as the crop is no doubt a great land improver. There are some, however, who are inclined to think that peas can be grown on the same land year after year, and improve the soil without using any plant food. This is a mistake. Cow peas, like every other crop, will impoverish the soil, if we do not use a fertilizer to prevent it.

NITROGEN FROM PEAS.

Peas, as we all know, make nitrogen by forming nodules on the roots, though they draw a great deal of potash and phosphoric acid from the soil; whereas, if the pea be grown year after year on same land, after a few years they will leave the soil much poorer than they found it, if no fertilizer be used. I prefer the cow pea to any other crop for improving the soil, though I do not expect the soil to be improved unless properly treated. All farmers know nitrogen is the most expensive part of a complete fertilizer; this we do not have to buy if we grow the cow pea on a large scale.

Cow peas like every other crop do better on well pulverized soil, though they can be grown on land that clover, etc., will not, and improve the land. I usually raise fine peas sown broadcast after wheat, say about the last of June and first of July using in advance potash and phosphoric acid. I use a good deal of the above when wheat is sown in the fall putting enough for wheat and peas at one time.

GROW PEAS AFTER WHEAT.

After a number of years of experience with the cow pea, I am confident the cotton farmers would be far better off if they grew more cow peas, and never miss the time it takes to sow them. Almost every farmer at the South, no matter whether he rents or owns land, raises a little wheat. Now after the wheat is cut and removed from the field, it would pay in more ways than one, if he would sow this same land down in an early variety of the cow pea. It pays far better to plow land first, harrow well, then sow the peas, say from one to one and a half bushels to the acre; harrowed in well will make far better peas, than the ones plowed in. The more the ground is pulverized by harrowing the better, but as June and July are very busy months for the cotton farmer, he can plow the peas in with plow and make good crops, improving his soil, and having excellent food for his stock.

SAVING PEA VINE HAY.

There are many ways of saving pea hay, and it is a hard thing to say which is the best way. I have tried several ways, and all did very well with one exception. A good deal depends upon the weather. They can be cut and put in small heaps, then left to remain this way for several days, then they can be hauled and packed away in the barn. It will not do to let them lay on the ground until cured, as they shatter so badly when hauled, losing nearly all the leaves, which makes the best food. The way I like best is to get pronged poles, say nine feet long, put in the ground about eighteen inches, making small stacks over the field. This is very quick work, as hands can carry the vines on forks quicker than they can be hauled, because a radius of twelve yards will make a stack where the peas are good. Should there not be polls convenient having prongs, a straight pole and tack slats on same some four feet long, and stack on these. As the vines begin to cure, of course they settle and the prongs or slats cause the air to pass through the stacks, making the vines cure nice and bright. Vines put up this way should not be poles convenient having prongs, stacks as they are liable to damage if they are not put up very well, though I have hauled them up the beginning of winter, and they were not damaged at all, the stock eating them in preference to any thing else.

P. H. MANGUM, JR.

OBSERVATIONS OF AN EAST TENNESSEE FARMER.

Cor. of The Progressive Farmer.

This has been a rather backward season in East Tennessee, consequently crops are not so far advanced as is usual at this time of year, although they are probably farther along than at the same date last year. Corn, although small, is as a rule looking very well, but the season has been too dry for rapid growth. Wheat was winter-killed to a great extent, many fields being plowed up for other crops. What little is left has made a very poor growth; and the indications are that the crop will be the smallest in years. Fruit is also a general failure. While there will be a fair crop in a few places, in many others there will be very little or none. Pastures are not so good as might be wished; and altogether the outlook is for a rather poor year. It is hard to tell yet, however, how things will turn out.

INCREASED INTEREST IN STOCK RAISING.

Large areas of millet will be sown again for hay and seed; and cow peas are being planted more extensively every year. This is one of the most hopeful signs in our farming. When East Tennessee farmers raise better stock and more of it, and then make pastures for this stock to graze upon in summer, and grow legumes to feed it in the winter, the day of their deliverance will be at hand.

That interest in stock-raising is increasing, was made evident by the discussions at the Farmers' Convention, at Knoxville, May 21-23. The meeting this year was a grand success, and the attendance was said to be the largest in the history of the organization. Among the visitors present were Ex-Governor Hoard, of Wisconsin; T. B. Terry, of Ohio; Col. J. B. Killebrew and Mr. R. L. Armistead, of Nashville. Next to stock-raising and related questions, the subject most discussed was the improvement of our educational facilities. Surely there is nothing that needs more discussion or more action.

On May 24, Mr. Terry and Professor Mooers, of the University of Tennessee, addressed the farmers of Hamblen County, at Morristown. There was a large crowd, and much interest was shown.

That these meetings have had and will continue to have a good effect upon our farming can not be doubted. It is equally true that our methods are very bad yet.

BETTER TILLAGE AND BETTER PASTURES NEEDED

Two things that are very common and very regrettable, are the scarcity of pastures, and the poor preparation of the soil for crops. Thousands of acres of our hill-land which should be, and might be, in grass, is cultivated year after year, yielding poor crops and steadily growing poorer. On the other hand, when the farmer puts this land in corn or wheat he usually goes at it with a rush, and plants his crop on half-prepared land. Under such circumstances a good crop is almost impossible. This poor preparation of the soil accounts too for most of our failures with grass and clover.

POOR FARMING IN THE COTTON BELT

It is some comfort, however, to think that our methods are not so bad as they might be. A trip to the cotton-growing sections will convince any one of that. Where the land is plowed with one mule, or the cotton planted between the old rows with no plowing at all, and where cotton is grown on the same land year after year, the farmer is bound to be poor. All these things—the one crop system, the shiftless preparation of the soil, and the glaring poverty of the cotton growing sections, impressed me painfully on a recent trip through the Carolinas. Our hills seemed rich compared with the lands I saw there; but I may have obtained wrong ideas of the conditions.

At any rate I am satisfied that there are worse places than East Tennessee; and that with better methods it might be made a great country. This is also true, no doubt, of the Carolinas.

E. E. MILLER.

Hamblen Co., Tenn.

HARRY FARMER'S TALKS.

LXXVII.

Cor. of The Progressive Farmer.

We took a trip with The Progressive Farmer to Fruit Town. Our appetite being in excellent shape, we could eat any kind of fruit with a relish. But we must not tarry too long for fear we will neglect some important part of the work which we have undertaken. We enter Mr. Smith's house where he is very busy looking over his mails. He takes up The Progressive Farmer and scans each page. At last he finds something that touches along on the line in which he is engaged.

A BUSINESS FARMER.

That he is progressive is apparent, as we look about his fields of berries and other fruit. His fields are nicely laid out. The drains are all in good shape, so that excessive rains will not damage his crops. The rows are uniform. There seems to be some system about all his work. His rule is "a place for every thing, and every thing in its place." All the necessary sheds and utensils for handling the large crops of fruit are nicely arranged. It took years of hard study and work to get all these things fixed and every year he makes changes.

IMPROVEMENT ALL THE TIME.

He sees in The Progressive Farmer and other agricultural journals many items which he studies and whereby he learns new methods which he puts into practice thus gaining all the time. Like everything else, there are many ways by which one can improve on his old plans in farm work.

This man takes an interest in his work. He wants to make money and live well so that his children can be educated and he have something to support him in his declining years. He gives employment to many people, thus helping all around him. The merchants, doctors, lawyers, preachers, and men of every calling are benefited by his farm.

FERTILIZERS AND SEEDS.

As one crop after another is gathered, it shows that he does not expect to draw money out of a bank in which he never deposits any. We mean that he uses manure, fertilizers and works on the land so that he may expect heavy crops. It is a fact you can not gather where you do not plant.

Only the best seeds and plants are used. Those that have been well tested and proved meritorious are used. He keeps a sharp look for the new ones and tries some of the most promising, not always with success. Not every new plant advertised possesses merit; sometimes they are pure humbugs.

FOLLOW THIS MAN'S EXAMPLE.

Many a young man would like to have this farm, but did you know there are thousands just as good, and some better, that can be built up with less work than this one? All you have to do is to go and conquer it.

Having enough fruit we will go to a different place.

HARRY FARMER.

Columbus Co., N. C.

SWEET POTATOES.

Mr. R. C. McLean bedded 12 or 15 bushels of sweet potatoes. He has set out two acres and will set two more with the view of raising potatoes to feed to his hogs. Mr. McLean says he has never before known so big an acreage of sweet potatoes as the farmers are setting out this year. This, he says, may be noticed wherever one goes. Mr. John Frank Jackson has about five acres in sweet potatoes and, by the way, five more in water-melons. The sweet potato is a good crop and it would be difficulet to raise too large a supply. In Gaston County there are close on to 30,000 people (to say nothing of the hogs) who are willing to help keep the potatoes from spoiling.—Gastonia Gazette.

Wilkesboro Chronicle: The largest crops of corn have been planted ever known in the county. The wheat crop is very light except in a few favored spots.

ABOUT SPRAYING.

Cor. of The Progressive Farmer.

My attention has been called to a clipping from the Smithfield Herald, with reference to the poisoning of a girl by eating apples that had been treated with Paris green. Answer being asked through The Progressive Farmer, will say that I am of the opinion that this could not be the cause of such trouble, or if it was, then the poison must have been used with rank carelessness after the fruit was ripe, when there could be nothing gained in any case by its use. If the regular spraying of trees with this poison were fatal to the consumers of the apple, what would become of the thousands of us, who every year buy these sprayed apples from New York, because they are so far superior to our own wormy, diseased and unwholesome fruit?

Proper spraying with the Bordeaux Mixture and Paris green, adds health and vigor to the tree and fruit, and apples from trees thus treated are superior in every way, but no one advises the indiscriminate poisoning of apples with strong solutions of the poison, when they are about to be eaten. Trees properly treated are sprayed three times, all before the fruit is half grown, but another application may be made if needed, only it is not usually needed, but there is no danger from it.

FRANKLIN SHERMAN, JR.
Entomologist.

MANURING STRAWBERRIES — PROTECTING STRAWBERRIES WITH CLOTH.

Cor. of The Progressive Farmer.

Harry Farmer asks for my formula for manuring strawberries and asks that I give the result of cloth protection on strawberries this season.

Our plant nursery business has so wholly engrossed my time for the past ten years that I have not of late had time to use the cloth. My paper on that subject was the result of careful, and I think exhaustive, tests made in 1886, 1887, 1888, 1889, 1890, and 1891. Of all the years that I have ever seen, I think that the cloth protection would have paid best this spring if put on early, say before March 1st. The sharp continuous frosts in March, though they came too early to kill blooms, seriously impaired the vitality and subsequent productiveness of the plants by killing down the buds as fast as the plants put out.

If I had a piece of land from which I wished to obtain the highest results I should proceed as follows: Sow this summer thereon and plow under next fall as dense a mass of cow pea vines as I could grow. Next October I should sow in the drill 500 to 1,000 pounds cotton seed meal to the acre, mixing it well with the soil, and set the strawberry plants. A moderate crop of exceedingly fine berries could be gathered from the plant next spring.

These gathered I should "bar off" the plants, sow 1,000 pounds cotton-seed meal an acre on each side of the rows and then split the middles, throwing the dirt back to the plants and thus cover the cotton-seed meal.

Then give clean cultivation, not allowing too many runners to come and set. In February, 1904, I should apply over the rows, per acre:

100 lbs sulphate of potash.
300 lbs. acid phosphate.
100 lbs. nitrate of soda.

In February, 1904, I should put on the cloth cover. The crop of 1903 from fall set plants would probably not justify its use in 1903.

Let each grower test it in a small way to ascertain whether or not it will pay in his locality as well as to aquire skill in applying it before going into it largely.

O. W. BLACKNALL.

Vance Co., N. C.

Statesville Landmark: The flock of sheep of Messrs. Samuel Archer, W. B. Gibson and W. H. Adderholt has been moved from Mr. Gibson's, at Fancy Hill, to Mr. Adderholt's farm, in Bethany Township. Since the sheep were bought about a month ago 2,000 pounds of wool have been taken from them and there are also 100 young lambs.

CULTURE AND VALUE OF THE COW PEA.

An article on the above-named subject in last week's American Agriculturist, will be read with special interest in North Carolina, because it is a good article and because it is from the pen of Dr. Charles W. Burkett of the North Carolina A. and M. College. Says Dr. Burkett:

If we cannot possibly get clover to grow, we want some other good leguminous crop that will act as a soil improver, to fix in the soil the atmospheric nitrogen, and at the same time furnish a forage crop rich in protein and the muscle forming ingredients. I believe we have this in the cow-pea. The cowpea will take the place of the clover plant, if for some reason the latter will not grow. As a soil improver the cowpea is superior to clover, and this point is generally recognized by all who have had anything to do with the two plants. The cowpea will grow on a much poorer soil. I have tried these two crops side by side for three years in New Hampshire and on exceptionally poor soils where clover would not grow at all, cowpeas would produce from one to two tons per acre. The cowpea will produce a forage growth always equal if not greater than clover yields. As to their feeding value, the cowpea is superior, as is shown in the following:

FEEDING VALUE OF CLOVER AND COWPEAS

	Cowpeas	Clover
Dry matter	89.3	84.7
Digestible nutrients per cwt. protein	10.8	6.8
carbohydrates	38.6	35.8
fat	1.1	1.7

This table shows that cowpeas not only contain the largest quantity of digestible nutrients in 100 pounds, but they contain 37 per cent more digestible protein. This is of very great importance in feeding farm animals in the north, no matter to what class they belong. We are feeding cowpea hay as a substitute for bran and are getting as god results. Thus far we have considered this forage crop as equal and even superior to clover. Clover will fail often; cowpeas seldom. On soils that are very wet and cold, cowpeas will not prove satisfactory. But if they are reasonably warm and not saturated with water, during July and August, they will grow luxuriantly, even on poor ground. Their ability to fully mature is not yet wholly established. Doubtless the seed used at the present time is too much from the South to have adapted itself to full maturity. Selection will, however, soon remedy this. And it is not a matter of vital importance, either, to grow your own seed so long as it can be obtained at reasonable prices.

PREPARATION OF THE SOIL

Prepare the soil like you would for any other crop. There is no hurry for the cowpea must be planted late. Have a good seedbed, well plowed and harrowed, and mellow and fine. On old worn-out soils the plow should be run no deeper than four or five inches. The rest of the preparation may be similar to that done for corn. The application of manure will show its effects on cowpeas; if this is not practicable and the soil is very poor, then use a small application of chemical fertilizers. If you are intending to follow the peas with winter wheat, it is not a bad time to use your wheat fertilizer on the peas before sowing them. Their increased growth will add more nitrogen to the soil. We are inclined to think the best place and time to add such fertilizers is for the cowpea crop, rather than the crop following. A fertilizer carrying nitrogen, phosphoric acid and potash on the majority of soils will be the most satisfactory. I suggest the following: nitrate of soda 100 pounds, muriate of potash 50 pounds and acid phosphate 100 pounds. This quantity will not be too heavy on very light and poor soils that wheat follows. Better soils may be given a smaller application or none at all. The fertilizer should be scattered broadcast over the field and harrowed in.

TIME AND MANNER OF PLANTING.

The great secret in sowing cowpeas is not to get them in the ground too early, before the soil is dry and warm. The latter part of June and early July is perhaps the best time. If the soil is wet and cold postpone planting. No harm will be done. When we have learned a little more about this plant we will find it possible to harvest a wheat crop, sow to cowpeas immediately, harvest the cowpeas for hay, and then follow with wheat again. I do not approve of this rotation, even where the seasons will permit it to be done, but still in many instances it can be followed with cowpeas and later by wheat. It is done in the South with lots of time between each crop and there is no reason why in some instances it cannot be done further North, especially with the early maturing spring crops.

The cowpea may be drilled and cultivated like corn, or broadcasted and harrowed in. The seed drill can be used, but it breaks many of the seed. On rich soils, if broadcasted, the quantity of seed should be about 1½ bushels per acre. If less than this quantity the stems will grow too large and stout to cure well into hay. About a bushel per acre on thin lands will prove a good seeding, and it would be best to sow in rows and cultivate.

VARIETIES AND TIME OF RIPENING.

I have had best results with the Whippoorwill and Warren's Extra Early. The latter will ripen in 60 days from the sowing, while the former will require a very little longer period. Either variety under ordinary conditions will mature sufficiently for making good quality hay. If the seed is Southern grown it will not usually mature. If we are after hay, rich in protein, this is not a serious matter. The cowpea crop is produced in 60 to 80 days, while with clover a year or more is needed.

CURING AND HARVESTING COWPEAS.

The greatest difficulty in the culture of the cowpea lies in harvesting and curing the crop. Like clover this is no easy thing to do and get a good grade of hay. If you can cure clover, you can cure cowpea hay. We put in the mow the past fall, during a wet season, over 40 tons of cowpea hay and fed it away into the winter. It is bright and clear and what we term of the highest quality. We cut the crop with the mowing machine and left it alone for a day. Then used the tedder in the morning for a good stirring and that same evening it was put up in good-sized cocks and left for three days. The cocks were then opened and spread out to sun dry. That evening they were taken into the barn and stored in the mow. We are feeding it to take the place of bran for our horses and cattle, milch cows and young steers. They eat everything, including the coarse stems, and nothing is better.

COWPEAS IN CORN

If you can grow corn add nitrogen to the soil and get a forage crop at the same time, something desirable. Many farmers are doing this. When the corn is laid by the last of June about a half bushel of cowpeas per acre is sown before the cultivator. The cultivator covers the seed. When the corn is harvested, usually a ton or more cowpeas per acre are in sight. These cannot be harvested for hay, but make good pasture for either cattle, horses, sheep or swine. If corn is to be followed with wheat, the peas can be left on the ground for their fertilizing effect or pastured off. This means humus and plant food for the soil. I believe the coming of the cowpea will prove a blessing to our farming people. To the farmer who cannot grow clover, cowpeas will prove a friend.

Warsaw Cor. Post: Our farmers are waking up to the necessity of labor-saving machinery, and as an evidence of the fact three firms are handling the McCormick, Deering and Johnson machines and implements and the sales justify the statement that general farming with improved methods along with the trucking interests, will make this section rich and prosperous in a short time.